

**PART 71 FEDERAL OPERATING PERMIT  
DRAFT STATEMENT OF BASIS**

**Salt River Materials Group  
Salt River Sand & Rock  
Permit No. SR-OP 03-01**

**1. Facility Information**

a. Permittee

Salt River Materials Group - Salt River Sand & Rock (“SRSR”)  
8800 E. Chapparal Rd.  
Scottsdale, AZ 85250

b. Facility location

Beeline, Dobson, and Higley facilities  
Salt River Pima-Maricopa Indian Community (“SRPMIC”), AZ

c. Contact information

Facility Contact: James Silversmith (480) 990-1987

Responsible Official: Roger Smith, (480) 850-5757

d. Description of operations, products

SRSR produces sand and gravel at three sites, known as the Dobson, Beeline, and Higley facilities. Equipment consists of batch drops, crushers, screens, conveyors, stackers, feeders and diesel-fired electrical generators.

e. Permitting and construction history

SRSR, an enterprise division of the government of the SRPMIC, has been operating since 1981. SRSR operates aggregate crushing and screening facilities at three sites within the SRPMIC: Beeline, Dobson, and Higley. These three facilities are adjacent, have the same owner and Standard Industrial Code, and share production and equipment. For these reasons, and based on additional information provided by SRSR, EPA concluded that the Dobson, Beeline, and Higley facilities are functionally interrelated and operate as a single stationary source for Clean Air Act (“CAA”) permitting purposes. EPA made this determination to aggregate the three facilities for permitting purposes in a letter to

SRSR dated May 4, 2005, which is included in the administrative record for this Title V permitting action.

f. Emission-generating units and activities

Table 1 in Appendix A of this Statement of Basis lists the permitted emission-generating units and activities at SRSR.

g. Potential to emit

Potential to emit (“PTE”) means the maximum capacity of a facility to emit any air pollutant (criteria or HAP) under its physical and operational design. Any physical or operational limitation on the maximum capacity of SRSR to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted or processed, may be treated as part of its design if the limitation is enforceable by EPA. PTE is meant to be a worst case emissions calculation and is used in many, though not all, cases to determine the applicability of federal requirements. Actual emissions are typically lower than PTE.

In its permit application, SRSR requested a limit a NO<sub>x</sub> emissions cap for its diesel-fired generator engines. EPA interprets 40 C.F.R. § 71.6(b) and Section 304(f) of the 1990 Clean Air Act, 42 U.S.C. § 7604, to provide discretionary authority to include PTE limits in Part 71 permits. EPA has incorporated a plant-wide federally enforceable NO<sub>x</sub> cap of 237 tons per year (“tpy”) into the permit in order to make SRSR a nonmajor Prevention of Significant Deterioration (“PSD”) source for NO<sub>x</sub>. The PSD requirements found at 40 C.F.R. Part § 52.21 apply to major stationary sources emitting pollutants for which the area is in attainment with the national ambient air quality standards (“NAAQS”). For rock crushing facilities like SRSR, the PSD major source threshold is 250 tpy. SRSR will perform a monthly PTE calculation, based on engine operating hours and emission factors, to demonstrate compliance with the NO<sub>x</sub> emissions cap on a 12-month rolling basis. Table 2 shows the PTE for all generator engines at SRSR, taking into consideration the NO<sub>x</sub> emissions cap discussed above.

Table 2. PTE of Generator Engines (tons per year)<sup>1</sup>

<b>Pollutant</b>				
<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>SO<sub>2</sub></b>	<b>PM-10</b>	<b>CO</b>
237	4.4	27.7	30.98	14.5

The facility is located in an area currently designated as nonattainment for ozone, with a major source threshold of 100 tpy for the two ozone precursors, NO<sub>x</sub> and VOCs. Therefore, based on the PTE presented above, SRSR is a major source of NO<sub>x</sub> for nonattainment New Source Review permitting purposes, and would trigger Lowest Achievable Emission Reduction (“LAER”) and offset requirements if it makes a major modification in the future that results in a significant net emissions increase of NO<sub>x</sub> of by 40 tpy or more.

The PM-10 PTE calculations provided by SRSR in its permit application are based on AP-42 emission factors that assume control efficiencies of 92.7% for transfer points, 77.5% for crushers, 91.5% for screens, and 95.8% for batch drop points that are controlled. Although SRSR operates spray bars to control particulate emissions, the facility is not subject to any mass emission or grain loading particulate emission limits, nor any federally enforceable requirement that its control efficiencies equal or exceed these percentages. Also, AP-42 emission factors represent an average of a range of emission rates, which means that approximately half of the subject sources will have emission rates greater than the emission factor. For these reasons, the AP-42 controlled emission factors may not be relied on for the purposes of calculating PM-10 PTE for regulatory purposes. Therefore, EPA has recalculated the facility’s PM-10 PTE without using the control efficiencies assumed by SRSR in its permit application. Table 3 below shows SRSR’s PM-10 PTE, as recalculated by EPA. Appendix B of this Statement of Basis contains more detail, including a complete listing of emission points within each portion of the facility listed in Table 2, the PTE reported by SRSR in its permit application, and the control efficiencies indirectly SRSR claimed by relying on AP-42 emission factors.

The facility is located in an area currently designated as a “serious” nonattainment area for PM-10, with a major source threshold of 70 tpy. See CAA 189(b)(3).) Therefore, based on the PTE presented in Table 3, below, SRSR is an existing major source of PM-10 for nonattainment New Source Review (“NNSR”) permitting purposes, and will trigger LAER and offset requirements if it makes a major modification in the future that results in a significant net

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<sup>1</sup> Table 2 does not list hazardous air pollutant (“HAP”) emissions, which were not included in SRSR’s application. However, the only HAP emissions emitted from diesel-fired generator engines are VOCs, which are included in the VOC PTE of 4.4 tpy. Since the total VOC PTE is less than half of the major source HAP threshold of 10 tpy of a single HAP, and HAPs comprise only a small portion of the 4.4 tpy VOC PTE, SRSR is not a major HAP source.

emissions increase of PM-10 of 15 tpy or more.

SRSR is also a major source for particulate matter (“PM”) under the PSD program, since PM is a “regulated NSR pollutant,” as that term is defined in EPA’s PSD regulations at 40 C.F.R. § 52.21. In regard to the level of PM emissions, since PM PTE is higher than PM-10 PTE (PM-10 is a component of PM), we note that the source’s PM PTE exceeds the PSD major source threshold of 250 tpy by a wide margin. To conclude, SRSR would trigger PSD review if it makes a major modification in the future that results in a significant net emissions increase of any attainment pollutant, including PM and NO<sub>x</sub>, or NNSR review if it makes a major modification in the future that results in a significant net emissions increase of certain nonattainment pollutants, such as PM-10, VOC and NO<sub>x</sub>.

Table 3. PM-10 PTE (tpy)

<b>Facility</b>	<b>Emission Source</b>	<b>PM-10</b>
Beeline	Crusher 1	75.23
	Crusher 6	52.24
	Crusher 17	80.51
	Wash Plant 11	39.93
Dobson	Crusher 8	60.12
	Wash Plant 1	64.96
	Wash Plant 10	109.28
	Wash Plant 12	38.84
	Asphalt Plant	28.68
Higley	Crusher 3	40.18
	Barmac Crusher	46.78
	Wash Plant 3	42.15
	Crusher 16	68.14
<b>Total</b>		747.04

Table 4. Facility-wide PTE (tpy)

<b>Pollutant</b>				
<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>SO<sub>2</sub></b>	<b>PM-10</b>	<b>CO</b>
237	4.4	27.7	777.98	14.5

## 2. Tribe Information

### a. General

The reservation of the Salt River Pima-Maricopa Indian Community is located in

Maricopa County and borders Mesa, Tempe, Scottsdale, Fountain Hills and metropolitan Phoenix. The Community consists of 52,600 acres, comprised mostly of agricultural lands. The Community is comprised of two Indian tribes, the Onk Akimel Au-Authm (Pima) and the Xalchidom Pii-pash (Maricopa).

b. Local air quality and attainment status

This facility is located in an area currently designated as nonattainment for PM-10 and ozone, and attainment or unclassifiable for CO, NO<sub>2</sub>, SO<sub>2</sub>, and lead.

### 3. **Applicable Requirements**

a. Standards of Performance for Nonmetallic Mineral Processing Plants, 40 C.F.R. Part 60, Subpart OOO

Subpart OOO applies to the crushing, screening, and conveying operations at SRSR. The facility is subject to opacity limits for fugitive emissions. Subpart OOO also has opacity and particulate matter limits for stack emissions. However, these limits do not apply to any emission units at SRSR because the facility does not use any “capture system,” as defined in 40 C.F.R. § 60.671.

Subpart OOO applies to affected facilities that commenced construction, reconstruction, or modification after August 31, 1983. Based on SRSR’s application, six emission units were constructed prior to this date, and have not been reconstructed or modified since they were constructed. Therefore the following emission units are exempt from Subpart OOO:

<u>Emission Unit ID</u>	<u>Description</u>	<u>Year Construction Commenced</u>
23-200	Screen Box	1968
20-300	Crusher	1978
24-103	Conveyor/Stacker	1980
20-600	Crusher	1977
21-123	Conveyor	1980
21-137	Conveyor/Stacker	1982

b. Incorporation of Applicable Requirements into Part 71 Permit

Table 5. Incorporation of Applicable Requirements into Part 71 Permit

<b>Applicable Requirement</b>	<b>Condition &amp; Page in Permit</b>	<b>Description/Notes</b>
40 C.F.R. 60, NSPS, Subpart A (General Provisions)		
40 C.F.R. 60.4(a)	III.D.1., page 14	submit reports to EPA Regional office

40 C.F.R. 60.7(a)	III.D.2., page 14	notification of reconstruction or modification
40 C.F.R. 60.7(b)	III.D.3., page 14	records of startup, shutdown, malfunction
40 C.F.R. 60.7(f)	III.D.4., page 15	maintain monitoring records
40 C.F.R. 60.9	III.D.5., pages 15	availability of information
40 C.F.R. 60.11(a)	III.D.6., page 15	compliance with non-opacity standards
40 C.F.R. 60.11(d)	III.D.7., page 15	good practice to minimize emissions
40 C.F.R. 60.11(g)	III.D.8., page 15	credible evidence
40 C.F.R. 60.12	III.D.9., page 15	circumvention
40 C.F.R. 60.19	III.D.10., page 16	general notification and reporting
40 C.F.R. 60, NSPS, Subpart OOO		
40 C.F.R. 60. 672(b)	II.A.2, page 5	10% opacity limit for conveyors
40 C.F.R. 60. 672(c)	II.A.3, page 5	15% opacity limit for crushers
40 C.F.R. 60. 672(b)	II.A.4, page 5	10% opacity limit for screens
40 C.F.R. 60. 672(h)(1)	II.A.5, page 5	no visible emissions from wet screening

#### **4. Non-Applicable Requirements**

40 C.F.R. Part 64, Compliance Assurance Monitoring (“CAM”)

The Compliance Assurance Monitoring (“CAM”) rule, codified in 40 C.F.R. Part 64, targets Title V sources with large emission units that rely on add-on control devices to comply with applicable requirements. The underlying principle, as stated in the preamble to the final rule, is “to assure that the control measures, once installed or otherwise employed, are properly operated and maintained so that they do not deteriorate to the point where the owner or operator fails to remain in compliance with applicable requirements.” 62 Fed. Reg. 54902 (Oct. 22, 1997). CAM applies to an emission unit at Title V sources on a pollutant-specific basis if the emission unit is subject to an emission limit, uses an add-on control device, and has a pre-control PTE that exceeds the major source threshold.

SRSR is not subject to CAM. The generator engines do not have control devices. SRSR uses spray bars to control PM-10 emissions from several aggregate processing emission units, such as crushers and screens. However, as shown in Appendix B, none of these emission units have a pre-control PM-10 PTE that exceeds the major source threshold of 70 tpy.

#### **5. Periodic Monitoring**

Subpart OOO requires an initial performance test within 180 days of startup to determine compliance with its opacity limits, but no additional testing beyond this one-time test is required by the regulation. Since Subpart OOO does not require on-going testing, EPA has determined that additional monitoring and testing is necessary in order to assure compliance with the opacity limits. This is consistent with Part 71, which

requires that when an underlying applicable requirement does not require periodic testing or monitoring, Title V permits must contain “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” 40 C.F.R. § 71.6(a)(3)(i)(B)). Therefore EPA has added requirements for SRSR to conduct visible emissions surveys and water spray observations on a monthly basis, and Method 9 opacity observations on an annual basis. In accordance with EPA’s memorandum “Alternative Testing Procedure for Application of Method 9 to Multiple Emission Points Under 40 CFR 60, Subparts LL and OOO<sup>2</sup>, ” dated April 20, 1999, the permit allows a single visible emission observer to conduct visible emissions observations for up to three Subpart OOO fugitive emission points within a 15-second interval, subject to certain limitations. We believe these requirements satisfy the timeliness, reliability, and representativeness requirements of Part 71.

EPA has also added performance testing of the diesel-fired generator engines to ensure that their actual emissions do not exceed the emission factors that, along with limitations on hours of operation, form the basis of the facility-wide 237 tpy NO<sub>x</sub> PTE limit. The permit requires annual performance testing for the two engines with the highest emission rates, Emission Unit 52-142 (Caterpillar model 3508) and Emission Unit 52-147 (Caterpillar model 3412 generator engine rated at 1108 BHP). Five of the remaining engines have been divided into two groups. One engine from each group must be tested annually. Finally, the two engines with the lowest emissions (Emission Units 52-154 and Emission Unit 52-125) must be tested once per five year permit term.

Table 6 summarizes the periodic monitoring that EPA has added to the permit.

Table 6. Periodic monitoring added to the Permit

<b>Requirement</b>	<b>Condition &amp; Page in Permit</b>	<b>Monitoring Description</b>	<b>Monitoring Condition #</b>
NO <sub>x</sub> facility-wide limit	II.A.1., page 5	performance testing	II.C.5. to II.C.7., pages 7-8
		monthly emission calculation	II.C.8., page 8
	II.B.3., page 6	recording of operating hours	II.D.1 to II.D.3., pages 8-9
NSPS opacity limits	II.A.2. through	monthly observation of water sprays	II.C.4., pages 7

<sup>2</sup> included as Appendix C of this Statement of Basis

<b>Requirement</b>	<b>Condition &amp; Page in Permit</b>	<b>Monitoring Description</b>	<b>Monitoring Condition #</b>
	II.A.4., page 5	monthly visible emission survey	II.C.1., page 6
		annual Method 9 opacity observation	II.C.2., page 6

## **6. Use of All Credible Evidence**

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source and EPA in such determinations.

## **7. EPA Authority**

Title V of the CAA requires that EPA promulgate, administer, and enforce a Federal operating permits program when a State, local, or Tribal agency does not submit an approvable program within the time frame set by Title V or does not adequately administer and enforce its EPA-approved program. On July 1, 1996, EPA adopted regulations codified at 40 C.F.R. Part 71 setting forth the procedures and terms under which the Agency would administer a Federal operating permits program. See 61 Fed. Reg. 34202. These regulations were updated on February 19, 1999 to incorporate EPA's approach for issuing Federal operating permits to covered stationary sources in Indian country. See 64 Fed. Reg. 8247.

As described in 40 C.F.R. § 71.4(a), EPA will implement a Part 71 program in areas where a State, local, or Tribal agency has not developed an approved Part 70 program. Unlike States, Indian Tribes are not required to develop operating permits programs, though EPA encourages Tribes to do so. See, e.g., Indian Tribes: Air Quality Planning and Management, 63 Fed. Reg. 7253 (Feb. 12, 1998) (also known as the Tribal Authority Rule). Therefore, within Indian country, it is appropriate that EPA administer and enforce a Part 71 Federal operating permits program for stationary sources until Tribes receive approval to administer their own operating permits programs. As the Salt River Pima-Maricopa Indian Community has not received approval from EPA to operate a permits program, it is appropriate for EPA to issue this Part 71 permit.



## **8. Endangered Species Act**

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR. Part 402, EPA is required to ensure that any action authorized, funded, or carried out by EPA is not likely to jeopardize the continued existence of any Federally-listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. The Title V permit EPA is issuing to SRSR does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Therefore, EPA has concluded that the issuance of this permit will have no effect on listed species or their critical habitat.

## **9. Public participation**

### **a. Public Notice.**

As described in 40 C.F.R. § 71.11(a)(5), all Part 71 draft operating permits shall be publicly noticed and made available for public comment. The public notice of permit actions and public comment period is described in 40 C.F.R. § 71(d).

There is a 30 day public comment period for actions pertaining to a draft permit. Public notice will be given for this draft permit by mailing a copy of the notice to the permit applicant, the Salt River Pima-Maricopa Indian Community, the affected state (Arizona), and local air pollution control agencies. A copy of the notice will also be provided to all persons who have submitted a written request to be included on the mailing list. If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued in Indian Country, please send your name and address to Roger Kohn at the address listed below:

Roger Kohn (AIR-3))  
U.S. Environmental Protection Agency, Region IX  
75 Hawthorne St.  
San Francisco, CA 94105

E-mail: [kohn.roger@epa.gov](mailto:kohn.roger@epa.gov)

Public notice will also be published in the Arizona Republic and the Authentic Action News, two newspapers of general circulation in the area affected by this source.

### **b. Opportunity for Comment**

Members of the public may review a copy of the draft permit prepared by EPA, this statement of basis for the draft permit, the application, and all supporting materials submitted by the source at:

U.S. EPA  
Air Division - 17<sup>th</sup> Floor  
75 Hawthorne St.  
San Francisco, CA 94105

Copies of the draft permit and this statement of basis can also be obtained at no cost from EPA's website [<http://www.epa.gov/region09/air/permit/epsdata.htm>] or by contacting Roger Kohn at the EPA address listed above or by telephone at 415-972-3973. All documents will be available for review at the EPA Region IX office indicated above during regular business hours.

If you have comments on the draft permit, you must submit them during the 30 day public comment period. All comments received during the public comment period and all comments made during any public hearing will be considered in arriving at a final decision on the permit. The final permit is a public record that can be obtained by request. A statement of reasons for changes made to the draft permits and responses to comments received will be sent to persons who commented on the draft permit.

If you believe that any condition of the draft permit is inappropriate, you must raise all reasonably ascertainable issues and submit all arguments supporting your position by the end of the comment period. Any supporting documents must be included in full and may not be incorporated by reference, unless they are already part of the administrative records for these permits or consist of tribal, state or federal statutes or regulations, or other generally available referenced materials.

c. Opportunity to Request a Hearing

A person may submit a written request for a public hearing to Roger Kohn, at the address listed in Section 9.a above, by stating the nature of the issues to be raised at the public hearing. Based on the number of hearing requests received, EPA will hold a public hearing whenever it finds there is a significant degree of public interest in a draft operating permit. If a public hearing is held, EPA will provide public notice of the hearing and any person may submit oral or written statements and data concerning the draft permit.

d. Mailing List

If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued in Indian Country, please send your name and address to Roger Kohn at the address listed above.